If the Silver Coelacanth model found in Spain in 1964 is genuinely a hundred years old, was it made or acquired by someone who had voyaged to the East via the Comores, for Professor Smith tells us that in early days ships called there regularly for fruit and vegetables. Can it be that sailors on this route saw

COELACANTHS a century ago?

by Shirley Bell

Illustrations by: Professor J. L. B. Smith

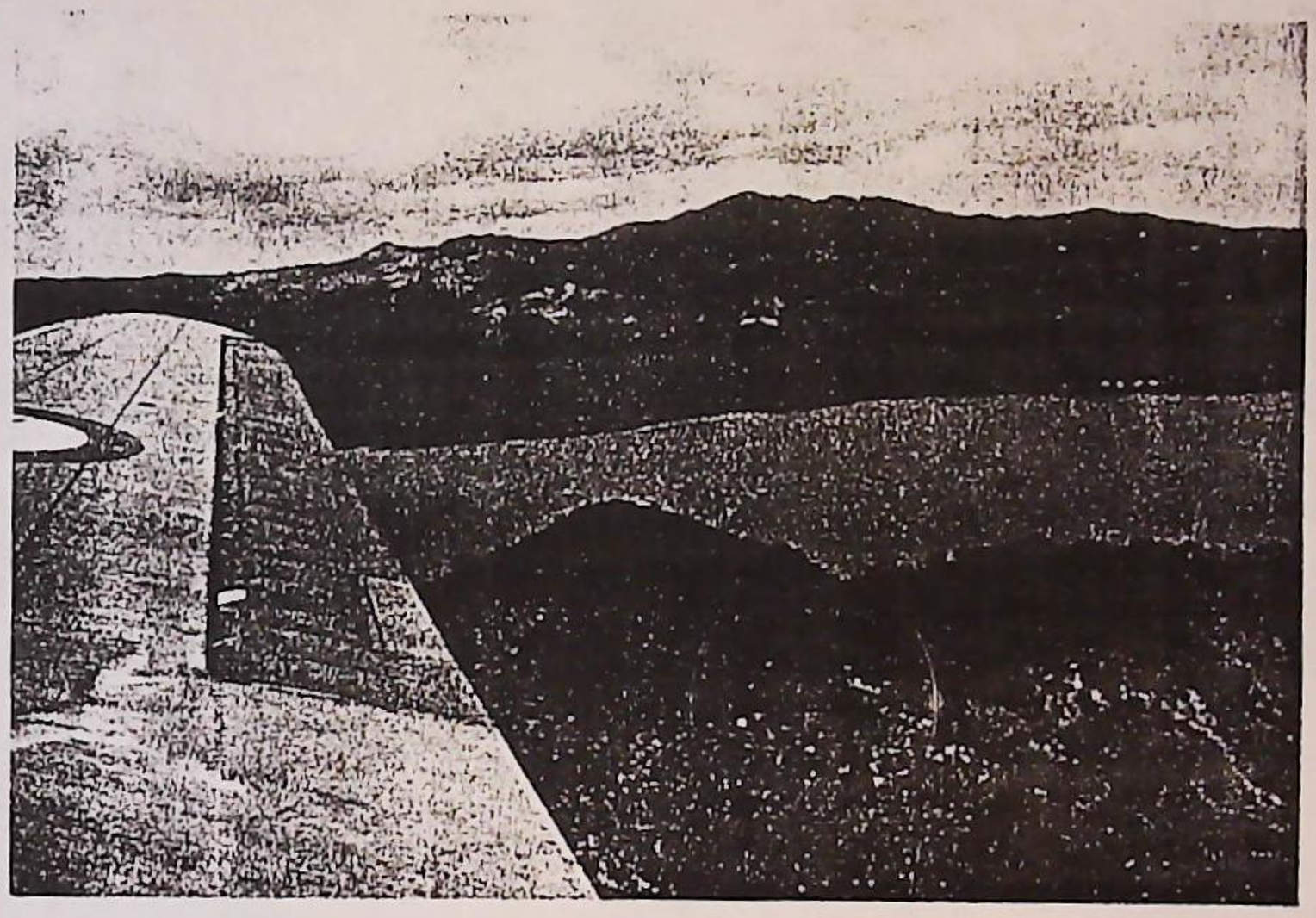
TWENTY eight years have passed since Professor J. L. B. Smith made one of the most incredible scientific announcements of our century when he identified a large heavily-scaled blue fish that had been trawled some 20 miles south-west of East London as a living example of a fish that scientists had believed to have been extinct for 70 million years – the Coelacanth.

The Coelacanth was trawled in about 240 feet of water some three miles offshore at the mouth of the Chalumna River. Neither the skipper, Captain Goosen, nor any of the crew had seen a fish like it before. About five feet long, it weighed 127-lbs. Its four leglike fins gave the armoured body a strangely lizard-like appearance, and its unusual fringed tail had a small "extra" tail protruding from the middle of it.

Captain Goosen went ashore to report to his company and asked them to contact Miss Courtenay-Latimer of the East London Museum who frequently made trips to the trawlers to scratch among the "rubbish" which the deckhands separated from the edible fish. Miss Latimer was deeply interested in obtaining unusual specimens of sea life which were mounted and exhibited at the museum.

Although not an ichthyologist, Miss Latimer realised that this strange fish was something unusual. She was unable to classify it from her reference books and so sent a note and rough sketch to the one person whom she knew would be able to help her – Professor Smith.

The Professor and his wife were at Knysna where he was awaiting the arrival of examination papers, as he was an examiner that year in the University of South Africa. Due to the postal congestion of the festive season, eleven days were to pass before the Professor opened Miss Latimer's letter and stared in stunned disbelief at her small rough sketch. Reluctant to believe the evidence of his own eyes, he realised at first glance nonetheless that he was looking at a drawing of a fish that scientists everywhere had believed to have been extinct for 70 million years.



The Dakota circling Anjouan in the Comores shortly before landing early in the morning of the 28th December, 1952.

Readers of *Field and Tide* and of the Professor's enthralling book, "Old Fourlegs", know the exciting story of what followed that momentous discovery. The Coelacanth had been mounted, and the soft parts, having putrefied, were thrown away. This was a bitter blow to the Professor, but he spent many weeks of infinitely painstaking work dissecting the Coelacanth, every minute fragment of skin and bone kept in its place.

His monograph on the Coelacanth was virtually a book and included many plates and beautiful finely detailed drawings. Its magnitude led a scientist friend to exclaim, "Great Scott, if you could write all this about only part of a fish, what would you have done with a whole one?"

Fourteen long years were to pass before the Professor realised that dream. . . . . a whole Coelacanth . . . . . there was still so much he

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NO "BIRDS' NESTS" WITH MITCHELL REELS

wanted to know about this wonderful creature from the past.

To honour Miss Latimer for her valuable contribution to science in realising that the Coelacanth was something unusual and preserving as much of it as she could, the Professor named the fish *Latimeria chalumnae*.

The first Coelacanths lived about 350,000,000 years ago! The first fishes that looked something like our modern types were the Crossopterygii (meaning 'fringe-finned'). Their fins were like small fringed paddles. They had bony jaws and overlapping scales, and a skeleton that was at least partly bony. There were two main lines in the Crossopterygii. These were the Coelacanths and the Rhipidistia. There is strong evidence that the Rhipidistia gave rise to the amphibians which in turn gave rise to all other backboned creatures on land, including man.

"It is at least likely that both of these types, the Coelacanths and the Rhipidistia, came from some as yet unknown common ancestral form, and that form would be ancestral to man as well." ("Old Fourlegs").

The second Coelacanth for which the Professor and his wife had sought for so long came from one of the islands of the Comoro group which lies in the Indian Ocean between the northern tips of Mozambique and Madagascar. During a number of expeditions along East Africa in search of the Coelacanth, while hunting fishes all the time, the Professor had pinpointed the Comores as being the home of the Coelacanth. Often he had stood and stared across that blue water in the direction of those isolated and then little known islands. The small boat he and his wife were using to voyage along the East African coast had no compass, but he longed to set off across that 200 mile strip of water to search for the great fish himself. He knew how the currents ran and their speed and felt quite sure that he could navigate using his watch and the sun and stars to find the way to the Comores. But the tiny vessel was not their own and even Mrs. Smith, usually so ready for adventure, viewed this hazardous plan with misgiving and showed "an unusual lack of enthusiasm" whenever the Professor mentioned it. Reluctantly, he gave up the idea of crossing that wind-lashed sea.

Professor Smith with the second Coelacanth at the Comores. With him is Captain Eric Hunt, the Governor of the Comores, and the crew of the Dakota. This photograph was taken at the Comores about 11 a.m., on the 28th December, 1952. Twelve hours later the film was developed in Durban by the Daily News photographer and within 48 hours the photograph had been published in every newspaper of any importance round the globe.

It was in 1952 that Captain Eric Hunt, who traded between Zanzibar, Madagascar and the Comores, met Mrs. Smith at an exhibition the Smiths had been asked to give in Zanzibar to allow the local people to see the wonderful variety of sea life they had discovered off their shores. The captain was at once interested in the Professor's Coelacanth leaflets that were being handed out. These had been printed years before and distributed all along East Africa. A batch had even been sent to Madagascar, but events were to prove that it is unlikely that any had ever reached the Comores. The leaflet gave a picture of the Coelacanth and an offer in English, French and Portuguese of R200 for a specimen.

Captain Hunt was most intrigued and took a batch of leaflets with him to distribute at the Comores. Mrs. Smith was delighted and told him of the Professor's conviction that the home of the Coelacanths was somewhere about those islands. Gladly, she answered the Captain's questions, and the searching intelligence of these convinced her that here was one layman who would be able to recognise a Coelacanth if he saw one.

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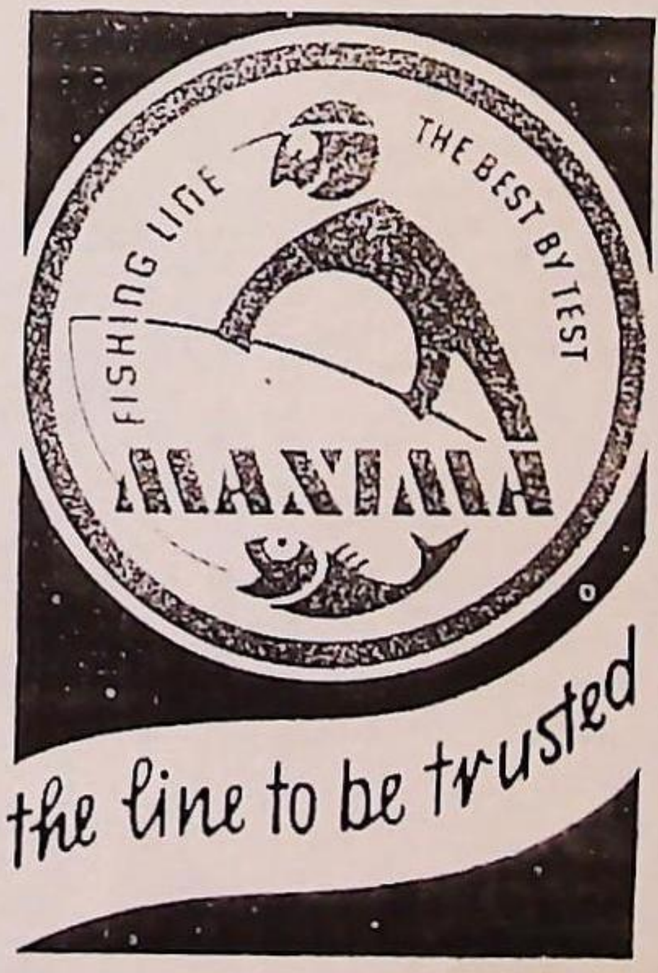


REMEMBER THE MITCHELL IS A SERVICED REEL

The Coelacanth in its coffin at Grahamstown. With Professor and Mrs. Smith is Miss M. C. Latimer of East London.

COELACANTHS

(Continued)

And it was during another festive season that the Professor finally achieved the realization of the dream that had obsessed him for fourteen long years. As he and Mrs. Smith chatted to friends who had come aboard to greet them as they passed through Durban on their way home, a cablegram arrived for the Professor. It was from Captain Hunt. As he had half-jestingly told Mrs. Smith, he had got hold of that Coelacanth for the Professor – and it was the pamphlet that the Professor had had printed all those years before that had done the trick!

The days that followed were a nightmare of strain and worry for the Professor as he sought help from one public figure after another. He had to get to the Comores before the Coelacanth putrefied and was lost to him. Later came a warning from Captain Hunt that the French were after the fish, although they had apparently not attached any importance to the leaflets that had been sent. They conceded, however, that they would hand over the Coelacanth to the Professor only if he came in person.

Finally, the Professor appealed to the Prime Minister, Dr. Malan. He had been reluctant to do this before, despite Mrs. Smith's urging, because once before he had appealed to a Prime Minister for help for a similar project, but within our country's borders, and had been coldly refused – and that Prime Minister had been interested in scientific subjects – Field Marshal J. C. Smuts. Dr. Malan was a minister of religion, and the Professor felt there was even less likelihood of his being interested. To his delight and everlasting appreciation, he was wrong. Dr. Malan showed instant interest and understanding and immediately arranged for his Minister of Defence to allocate a plane to take the Professor to the Comores.

And so, as 1952 drew to its close, Professor Smith brought the second Coelacanth home in triumph to a wonderful welcome at Durban airfield, which many still living in the city will remember. Durban was indeed the central point of this phase of the adventure.

Nearly thirty Coelacanths have now been taken off the east coast of Africa – the locality where the Professor was always so certain they would be found in the end, despite the declarations of many overseas scientists that the Coelacanth was a deep-sea fish. This, they claimed, was the reason why it had eluded capture for so long. It was a degenerate which had escaped to the depths to avoid competition.

The Professor knew at a glance that this was not so. The Coelacanth was blue, whereas fish from the abyss are very dark or even black to blend with their surroundings. His ponderous body was not built for speed, but he would creep silently among the reefs, well-protected by his heavy armour, and pounce upon his unsuspecting victims. There would be small chance of escape from those vicious fangs. Far from being degenerate, he would be the terror of his environment, a creature built for survival – how else could he have survived almost unchanged through the incredible period of at least 250,000,000 years?

Although the living fish have been taken only from these waters off the east coast of Africa, Coela-

ATLAS-KROIC LINE LASTS INDEFINITELY

canth fossils have been found in Europe, England, Scotland and North America, so it is clear that Coelacanths once spread and lived over a great part of the earth. Now, from the Mediterranean, comes a new mystery.

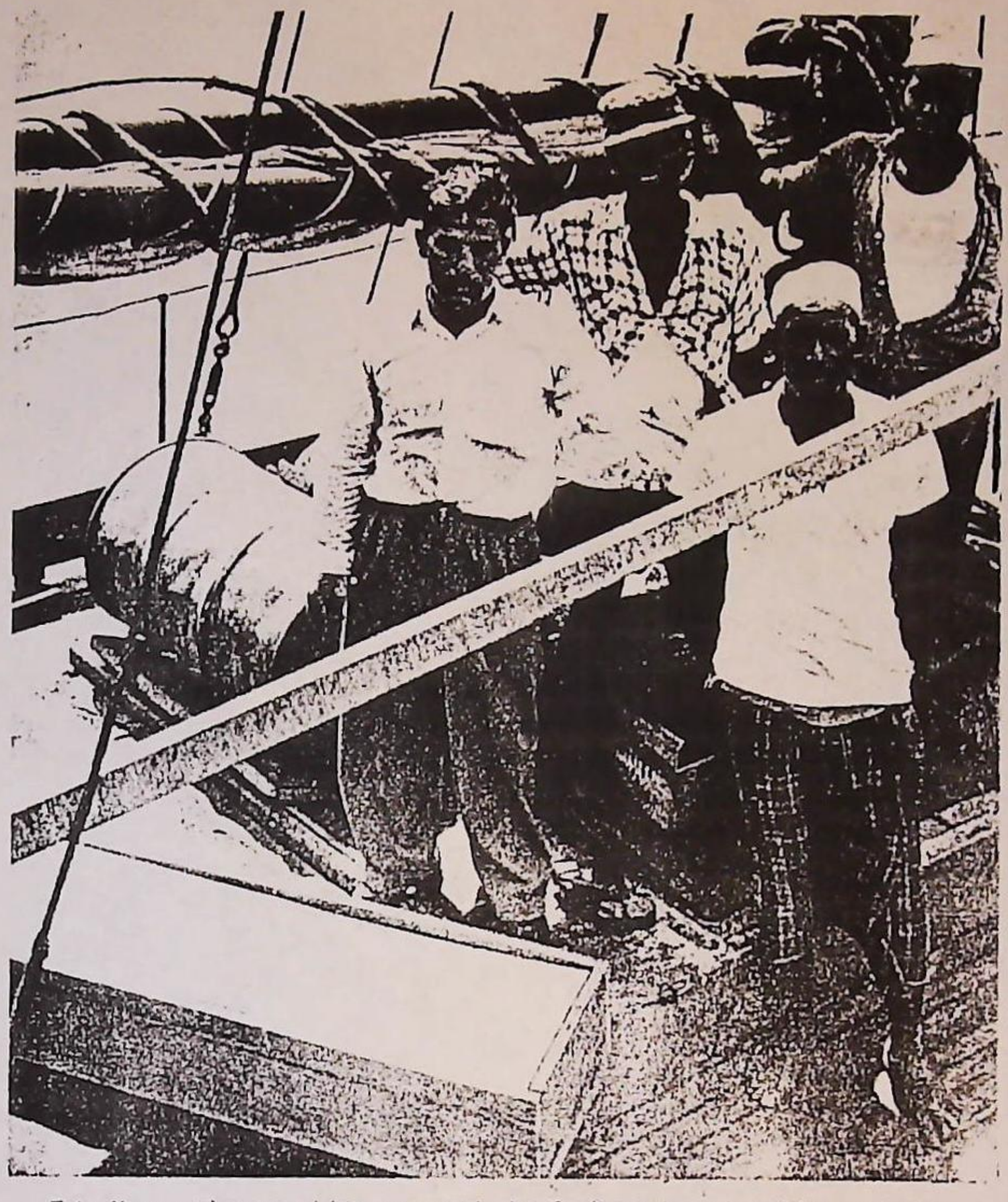
During 1964, Dr. Ladislao Reti, a chemist, bought a four-inch, accurately-scaled silver model of a Coelacanth from a priest who had it hanging in his church in a village near Bilbao on the northern coast of Spain. Dr. Reti believes that this silver Coelacanth was fashioned perhaps a hundred years before Coelacanths became known to science.

In an article in "Sea Frontiers" of June, 1966, (magazine of The International Oceanographic Foundation), two possible explanations are offered. One is that the artist worked from a fossil Coelacanth that had possibly been discovered in one of the Mediterranean countries. But fossils are seldom complete in every detail, and the accuracy of the model implies that the artist worked from life.

The second possibility, says the author, is remote, but most intriguing. Could there be Coelacanths living elsewhere than off the coast of East Africa? The habitat of the Coelacanths that have been taken is steep and rocky, and such habitats, he says, are not uncommon in the Mediterranean and eastern Atlantic Ocean, especially about the Canary Islands and the Azores. It has often been shown, he continues, that the failure to catch certain species of fish is due to lack of appropriate tackle. Can it be, he asks, that there are Coelacanths living in the Mediterranean, and that no one has fished for them properly?

Even though the Suez Canal was not completed until 1869, and the silver Coelacanth is believed to be at least a hundred years old, he considers that there is a faint possibility that a living Coelacanth from East Africa somehow managed to enter the Mediterranean after the Suez Canal was opened.

But even if a Coelacanth had contrived to reach the Mediterranean via the comparatively shallow Suez Canal, it would seem almost beyond belief that it could be subsequently



Eric Hunt and some of his crew with the Coelacanth on board his vessel at the Comores. Not long after, this was sunk in a cyclone. Hunt escaped, only to be drowned in a further disaster soon after.

seen and used as a model by the artist who fashioned the silver Coelacanth.

I was anxious to learn the opinion of Professor Smith, the man who discovered the first modern Coelacanth nineteen years ago and who spent fourteen of the best years of his life in searching for another.

"If the silver Coelacanth is genuine, as it could be", says the Professor, "then it could easily have arisen from someone who had voyaged in early times to the east and seen the fish at the Comores – for in those days, over a long period, all the ships called at Anjouan Island (then known as Joanna). This apparently started because an English Captain left the sea and kept a wonderful garden going there from which these ships could get fruit and vegetables at all times.

"Eastern races are famous for their skill as silversmiths. All along East Africa they have plied this art for centuries, and the model could have been made by one of these men in that area. The Portuguese were the first white voyagers in those parts, and odd Spaniards often went with them. One of them might well have acquired this model and taken it to Europe. At any rate I firmly believe that some of those early voyagers had at least seen a Coelacanth. I think this very much more likely than that the ornament was based on a specimen from the Mediterranean." ●

RECORD FISH ARE CAUGHT ON MITCHELL REELS